

INTERNATIONAL SEARCH REPORT

IB2005/050036

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G11B20/14 H03M5/14 G11B11/105

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 G11B H03M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>HEEGARD C D ET AL: "VARIABLE-LENGTH STATE SPLITTING WITH APPLICATIONS TO AVERAGE RUNLENGTH-CONSTRAINED (ARC) CODES" <i>IEEE TRANSACTIONS ON INFORMATION THEORY</i>, <i>IEEE INC. NEW YORK, US</i>, <i>vol. 37, no. 3, 1 May 1991 (1991-05-01)</i>, <i>pages 759-777, XP000204272</i> <i>ISSN: 0018-9448</i> <i>paragraph 'II.B!'</i></p> <p>-----</p> <p style="text-align: center;">-/--</p>	5-7,11, 12,14,15

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search	Date of mailing of the international search report
5 July 2005	13/07/2005
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl. Fax: (+31-70) 340-3016	Authorized officer Ogor, M

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BRAUN V: "On properties of binary maxentropic DC-free runlength-limited sequences" INFORMATION THEORY, 1995. PROCEEDINGS., 1995 IEEE INTERNATIONAL SYMPOSIUM ON WHISTLER, BC, CANADA 17-22 SEPT. 1995, NEW YORK, NY, USA, IEEE, US, 17 September 1995 (1995-09-17), page 203, XP010192652 ISBN: 0-7803-2453-6 the whole document -----	5-7,11, 12,14,15
P,A	US 2004/070524 A1 (KUROKAWA TAKAHIRO ET AL) 15 April 2004 (2004-04-15) paragraph '0058! - paragraph '0064! paragraph '0011! - paragraph '0013! paragraph '0067! paragraph '0072! - paragraph '0073! -----	5-7,11, 12,14,15
X	US 5 631 887 A (HURST, JR. ET AL) 20 May 1997 (1997-05-20) column 15, line 14 - column 16, line 43 -----	1,2,8,9, 13
A	WO 03/023776 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; VERSCHUREN, COEN, A) 20 March 2003 (2003-03-20) cited in the application page 3, line 10 - line 28 page 6, line 16 - line 18 page 8, line 6 - line 23 -----	1-4, 8-10,13
A	EP 0 477 892 A (HITACHI, LTD) 1 April 1992 (1992-04-01) the whole document -----	1-4, 8-10,13

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US 5631887	A 20-05-1997	NONE		
WO 03023776	A 20-03-2003	WO	03023776 A1	20-03-2003
EP 0477892	A 01-04-1992	JP JP DE EP US US US	2865841 B2 4137224 A 69124046 D1 0477892 A2 5590111 A 5732061 A 5418770 A	08-03-1999 12-05-1992 20-02-1997 01-04-1992 31-12-1996 24-03-1998 23-05-1995